

## **REMARKS**

### **I. Introduction**

Claims 26 to 52 are pending in the present application. In view of the following remarks, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration is respectfully requested.

### **II. Rejection of Claims 26, 28 to 30, and 40 to 43 Under 35 U.S.C. § 103(a)**

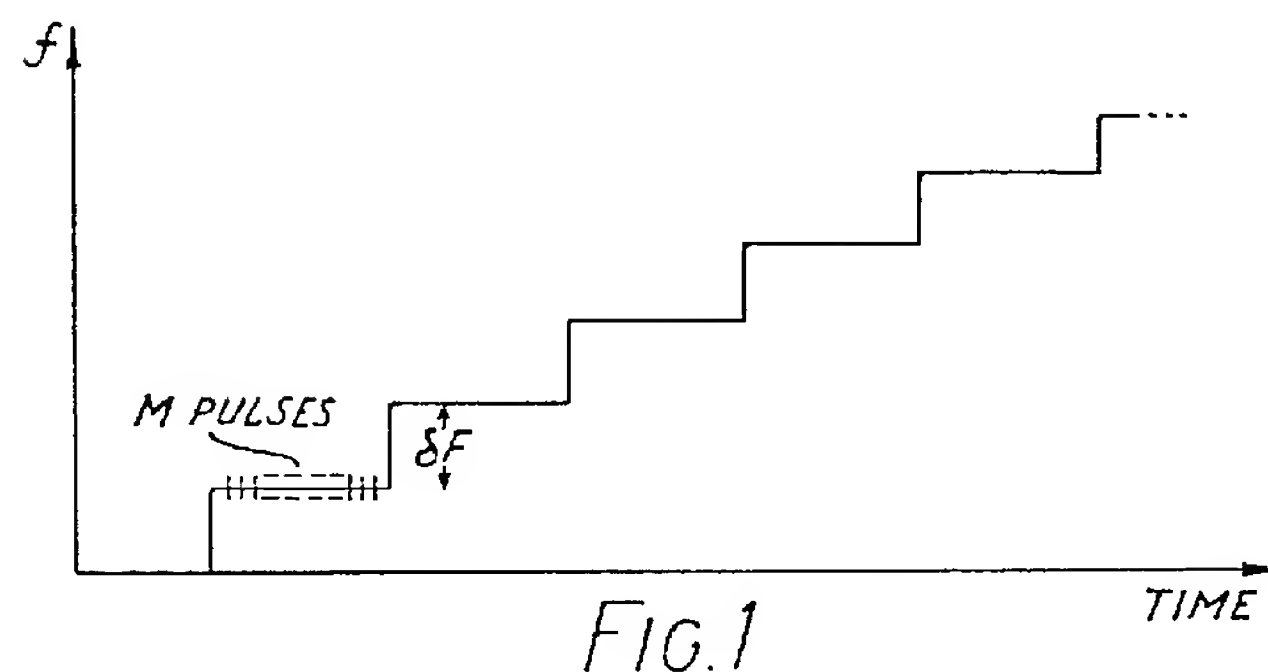
Claims 26, 28 to 30, and 40 to 43 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 6,888,492 (“Voles”). It is respectfully submitted that Voles does not render unpatentable the present claims for at least the following reasons.

In order for a claim to be rejected for obviousness under 35 U.S.C. § 103(a), the prior art must teach or suggest each element of the claim. See Northern Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 934 (Fed. Cir. 1990), cert. denied, 111 S. Ct. 296 (1990); In re Bond, 910 F.2d 831, 834 (Fed. Cir. 1990). In addition, as clearly indicated by the Supreme Court, it is “important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements” in the manner claimed. See KSR Int’l Co. v. Teleflex, Inc., 127 S. Ct. 1727 (2007). Further, the Supreme Court in KSR noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. M.P.E.P. §2143.

Claim 26 relates to a measuring device for at least one of (a) measuring a distance between the measuring device and at least one object and (b) measuring a speed difference between the measuring device and the at least one object, including an emission device adapted to send a transmission signal that includes at least two signal portion sequences, each of a first signal portion sequence and a second signal portion sequence including at least two temporally alternating signal portions, at least two signal portions of a signal portion sequence differing in frequency by one differential frequency, in which the differential frequency of the first signal portion sequence differing from the differential frequency of the second signal portion sequence.

Voles does not disclose, or even suggest, all of the claimed features of claim 26. Instead, Voles merely describes that a radar frequency is swept in a stepwise manner. Abstract; and col. 2, lines 14 to 20. In particular, Figure 1,

represented below, shows a stepwise frequency graph having a single increment  $\delta F$ .



Therefore, Voles does not disclose, or even suggest, the feature of a *differential frequency of a first signal portion sequence differing from a differential frequency of a second signal portion sequence*.

The Final Office Action at page 3 asserts that column 5, lines 30 to 49 disclose this feature of claim 26. However, the cited section of Voles merely describes four (or more) interleaved sequences of monotonic frequencies. A first sequence (I) includes the frequencies  $f_1, f_5, \dots, f_{2N-3}$ , a second sequence (II) includes the frequencies  $f_2, f_6, \dots, f_{2N-2}$ , a third sequence (III) includes the frequencies  $f_3, f_7, \dots, f_{2N-1}$ , and a fourth sequence (IV) includes the frequencies  $f_4, f_8, \dots, f_{2N}$ . Nothing in the foregoing description of the third succession (c) constitutes a disclosure, or even a suggestion, that a differential frequency of a first signal portion sequence differs from a differential frequency of a second signal portion sequence.

Nonetheless, the Final Office Action at page 3 states:

Voles teaches (col 5, lines 30-46) interleaving 4 sequences of pulses (I II III IV). Voles then goes on [to] state that the sequences could [be] arranged in ascending or descending order or as a mixture of both (col 5, lines 47 to 49). Interleaving pulses in the sequence of (I IV) and then followed by the sequence (II III) is a differential frequency of a first signal portion sequence differing from a differential frequency of a second signal portion sequence as suggested by Voles.

The Final Office Action proposes interleaving sequences I, IV of Voles, followed by interleaving sequences II, III of Voles. In any event, it is entirely unclear how Voles's statement that "[t]he sequences described in examples (a), (b) and (c) above ay [sic] be arranged in ascending or descending order or as a mixture of both" might be considered to have any bearing on whether Voles discloses, or even a suggests, that

a differential frequency of a first signal portion sequence differs from a differential frequency of a second signal portion sequence. In addition, it is entirely unclear how Voles's statement that "[t]he sequences described in examples (a), (b) and (c) above may [sic] be arranged in ascending or descending order or as a mixture of both" might be considered to constitute a disclosure, or even a suggestion, of "[i]nterleaving pulses in the sequence of (I IV) and then followed by the sequence (II III)" as stated in the Final Office Action. It should be noted that the technical meaning of the sequences is to evaluate the echo signals from the sequences separately. Therefore, a hypothetical combination of sequences to form hypothetical new sequences, as apparently suggested in the Final Office Action, is not in conformity with the technical discussion by Voles. In any event, it is entirely unclear how "[i]nterleaving pulses in the sequence of (I IV) and then followed by the sequence (II III)," as stated in the Final Office Action, might be considered to constitute "a differential frequency of a first signal portion sequence differing from a differential frequency of a second signal portion sequence."

Further, the Final Office Action at page 6 states that "if one were to send  $f_1=f_2-\Delta f$ ,  $f_1=f_3-(2\Delta f)$ ,  $f_1=f_4-(3\Delta f)$  in the sequence [sic] of  $(f_1, f_4)$  being the first portion and  $(f_2, f_3)$  being the second portion the differential frequency in the first portion would be  $(3\Delta f)$  and the differential frequency would be  $(\Delta f)$  as is suggested for  $N=2$  in col 5 of Voles." It is entirely unclear how Voles's statement at column 2, lines 17 to 22 that " $\Delta f = F/2N$ " might be considered to constitute a disclosure, or even a suggestion, of " $f_1=f_2-\Delta f$ ,  $f_1=f_3-(2\Delta f)$ ,  $f_1=f_4-(3\Delta f)$  in the sequence [sic] of  $(f_1, f_4)$  being the first portion and  $(f_2, f_3)$  being the second portion," as stated in the Final Office Action. In any event, it is entirely unclear how " $f_1=f_2-\Delta f$ ,  $f_1=f_3-(2\Delta f)$ ,  $f_1=f_4-(3\Delta f)$  in the sequence [sic] of  $(f_1, f_4)$  being the first portion and  $(f_2, f_3)$  being the second portion," as stated in the Final Office Action, might be considered to constitute "a differential frequency of a first signal portion sequence differing from a differential frequency of a second signal portion sequence."

Moreover, regardless of any interleaving or arrangement in ascending and/or descending order, ***the differential frequency of each sequence (I II III IV) remains constant at  $\Delta F$*** , as explicitly shown in Figure 1 of Voles. In this regard, Voles at column 1, lines 31 to 35 states the following:

In an embodiment of the invention the frequencies in each said sequence interleave with the frequencies in another

said sequence and, in particular, the frequencies in each said sequence may interleave with the frequencies in the immediately preceding and or succeeding sequence.

Even if sequences (I IV) are interleaved, and then sequences (II III) are interleaved, as suggested by the Final Office Action, the differential frequency of each sequence remains unchanged and ***constant at  $\delta F$*** . Thus, it is entirely unclear how or why Voles is considered to disclose, or even suggest, *a differential frequency of a first signal portion sequence differing from a differential frequency of a second signal portion sequence*.

Thus, nowhere does Voles disclose a first signal sequence having a differential frequency ***different*** from a second signal sequence. Moreover, Voles states that “the present embodiments are concerned with *manipulating the spectra* rather than improvements to the basic tracking technique.” Col. 3, lines 45 to 48 (emphasis added). Therefore, Voles does not disclose, or even suggest, the feature of *a differential frequency of a first signal portion sequence differing from a differential frequency of a second signal portion sequence*.

As for claims 28 to 30, which ultimately depend from claim 26 and therefore include all of the features included in claim 26, it is respectfully submitted that Voles does not render unpatentable these dependent claims for at least the same reasons more fully set forth above.

Claim 40 includes features analogous to those of claim 26. Accordingly, Voles does not render unpatentable claim 40 for at least the same reasons set forth above.

As for claims 41 to 43, which ultimately depend from claim 40 and therefore include all of the features included in claim 40, it is respectfully submitted that Voles does not render unpatentable these dependent claims for at least the same reasons more fully set forth above.

In view of all the foregoing, withdrawal of this rejection is respectfully requested.

### **III. Rejection of Claims 27, 31 to 39, and 44 to 52 Under 35 U.S.C. § 103(a)**

Claims 27, 31 to 39, and 44 to 52 were rejected under 35 U.S.C. § 103(a) as unpatentable over the combination of Voles and PCT International Published Patent Application No. WO 02/31529 (“Mende et al.”). It is respectfully

submitted that the combination of Voles and Mende et al. does not render unpatentable the presently pending claims for at least the following reasons.

Claims 27, and 31 to 39 ultimately depend from claim 26, and claims 44 to 52 ultimately depend from claim 40. As more fully set forth above, Voles does not disclose, or even suggest, all of the features included in claims 26 and 40. Mende et al. does not cure the deficiencies of Voles. Accordingly, it is respectfully submitted that the combination of Voles and Mende et al. does not render unpatentable dependent claims 27, 31 to 39, and 44 to 52.

In view of all of the foregoing, withdrawal of this rejection is respectfully requested.

#### **IV. Conclusion**

It is therefore respectfully submitted that all of the presently pending claims are allowable. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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